Rockwell's T4200 SiC MESFET beats Si or GaAs

Rockwell Scientific Company LLC has launched the first in a series of high power RF transistors and 50 ohms-matched power amplifier modules that are targeted for the emerging L- and S-band power needs.

The MESFET RF transistor T4200 is set to provide 25 watts of CW output power from baseband up to S-band with high power gain, high efficiency and superior linearity. The high performance transistor results from advances in transistor design, device fabrication, and packaging.

The power amplifier module, L1700, which provides 35W of CW power is designed for the 950 - 1500MHz frequency range with a power gain of 10dB.

This is matched to 50 ohms at interfaces that provide a simple path to construct high power systems.

"We have received strong interest in the use of SiC RF MESFETs for a variety of very wide bandwidth communication applications, and the high output power of this new product will allow for high power PA with a significant size and weight reduction," said Dr. Hsueh-Rong Chang, manager of the Power Electronics department.

"The wide bandwidth capability is due to the much higher output impedance for a given power level for SiC as compared to silicon or gallium arsenide RF devices."

Aeroflex teams up with Celerity

Aeroflex Inc, a US designer, developer and manufacturer of automated testing solutions and microelectronics for the aerospace, defence and broadband communications industries, has acquired Celerity Systems Inc from L-3 Communications Corp for $10.25m in cash, Aeroflex common shares and the release of certain liabilities.

Celerity Systems designs, develops and manufactures modular digital test and measurement solutions for the communications, satellite, wireless and broadband test markets, including broadband signal generation.

"Earlier this year, we entered into a limited manufacturing and license agreement with Celerity," said Len Borow, executive VP & COO of Aeroflex. "As we have worked together with Celerity, it became obvious to us that their considerable IP was an excellent fit with our IP which, taken together, is expected to allow us to expand our product development in such areas as cellular base station test systems."

Celerity will continue to sell its products directly to government agencies and will also sell products to L-3 under an exclusive relationship for use in signal intelligence and communication intelligence systems. Celerity is expected to add $6- $7m in revenue and be accretive to earnings to the fiscal year ending June 2004.

Anadigics' InGaP HBT overtakes AlGaAs

Anadigics has announced an InGaP, HBT 7x7mm GSM quad band power amplifier with integrated power control. The AWT6146 PA uses a pin-out compatible with the current generation of PAs, so customers can reduce time-to-market for new platforms that use the new PA.

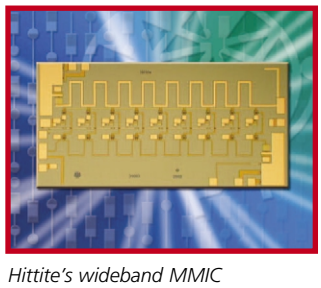
The RF engine and power control are compatible with the prior generation, reducing software changes and minimising production calibration needs.

The new module gives superior performance, reliability, and manufacturing yield, compared to AlGaAs technology.

"Our new PA module ... enables customers to bring new handset platforms to market faster than our competitors' solutions," said Dr Ali Khatib-zadeh, VP of Wireless Products.

The low-cost, single-layer-laminate-module technology used in the AWT6146 supports dual, tri, and quad band applications using any combination of GSM 850, GSM900, DCS, and PCS bands. It is priced at $2.95 per 1,000 units.

Hittite's new GaAs PHEMT distributed amplifiers



Hittite's wideband MMIC

Hittite Microwave Corp has released a series of wideband MMIC Low Noise, Driver and Power Amplifier die products which cover test equipment, military ECM/EW, fiber optic and microwave radio/VSAT applications from DC to 20 GHz.

The family of four 50 Ohm GaAs PHEMT distributed amplifiers offers gain levels of 14 to 17dB, noise figure as low as 2dB and P1dB output power levels ranging from +12 to +26 dBm.

These and a summary of 30 new products, including 15 new LNA, Gain Block, Driver and Distributed Amplifier products, are included in Hittite's autumn *2003 Product Selection Guide by Market*, organised by market applications for broadband, cellular/PCS/3G and microwave/millimeterwave, and includes system block diagrams with suggested HMC products for each system function. Information on Hittite's Custom RFIC / MMIC / Module and Military & Space products / services is featured as well and product data sheets can be found on-line. In addition to the Guide, an updated version of Hittite's 2003 Designer's Guide CD-ROM is also now available.

The CD offers greater functionality and includes all new products, block diagrams, package/layout information and the Selection Guide in pdf form.

Contact: www.hittite.com